

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

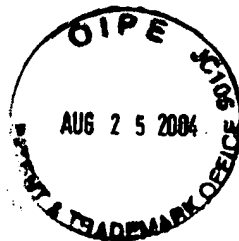
In re Patent Application of

BOSMAN et al.

Serial No. 10/825,219

Filed: April 16, 2004

For: REDOX REVERSIBLE HCV PROTEINS WITH NATIVE-  
LIKE CONFORMATION



Atty. Ref.: 2551-149

Group: 1645

Examiner: Unassigned

\* \* \* \* \*

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

August 25, 2004

Sir:

**INFORMATION DISCLOSURE STATEMENT**

- ☒ 1. **PTO-1449 Pursuant to 37 CFR 1.97(b)**  
[within 3 months of filing or prior to 1st Office Action on the merits]  
N/C
- ☐ 2.(a) **Statement Pursuant to 37 CFR 1.97(c)**  
[before Final Office Action or Allowance (requires Rule 97(e)  
Statement or Rule 17(p) fee)]  
N/C
- ☐ 2.(b) **Fee Payment Pursuant to 37 CFR 1.97(c)**  
[before Final Office Action or Allowance (requires Rule 97(e)  
Statement or Rule 17(p) fee)]  
\$180.00
- ☐ 3. **Pursuant to 37 CFR 1.97(d)**  
[after Final Office Action or Allowance (requires Rule 97(e)  
Statement and Rule 17(p) fee), but before final fee payment]  
\$180.00

The following are submitted in the above-identified application in compliance with 37 C.F.R. §§ 1.97 and 1.98:

- ☒ 4. A list of documents on Form PTO-1449 together with copies of each identified document and a translation or a concise explanation of each non-English language document (such as a Search Report) is enclosed herewith. Copies of the cited documents are not believed to be required as the same are of record in the parent Application Serial Nos. 09/795,289; 09/973,025; 08/928,017; and/or 08/612,973. A copy of the parent patent (U.S. Patent No. 6,150,134) is not enclosed however the Examiner is requested to advise the undersigned however if further copies of the cited documents are required.

This paper is submitted in accordance with:

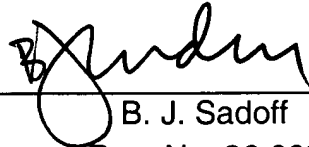
- ☒ 5. 37 CFR 1.97(b): [within 3 months of filing or prior to 1st Office Action]
- ☐ 6. 37 CFR 1.97(c): [before Final Office Action or Allowance, whichever is earlier]; and
- ☐ a) The required Statement made in item 8 below; or
- ☐ b) The \$180.00 fee specified in 37 CFR §1.17(p) for submission of this Information Disclosure Statement is authorized in item 9 below.
- ☐ 7. 37 CFR §1.97(d): [after Final Office Action or Allowance (requires Rule 97(e) Statement and Rule 17(p) fee), but before final fee payment]; and
- ☐ a) The fee (\$180.00) required by 37 CFR §1.17(p) is submitted herewith; and
- ☐ b) The required Statement is stated in item 8 below.
- ☐ 8. Statement under 37 CFR 1.97(e)
- ☐ a) The undersigned attorney of record hereby certifies under 37 C.F.R. §1.97(e) that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement (each item contained in this IDS was the first citation of that item by a foreign patent office in a counterpart foreign application which occurred no more than three months prior to the filing of this IDS); or
- ☐ b) No item of information contained in this Information Disclosure Statement

was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this Statement, after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

- ☒ 9. Please charge all deficiency fees associated with the submission of this Information Disclosure Statement and any other fees applicable to this application to Deposit Account No. 14-1140. An original and one (1) copy of this document are enclosed.

Respectfully submitted,  
NIXON & VANDERHYE P.C.

By: \_\_\_\_\_

  
B. J. Sadoff  
Reg. No. 36,663

1100 North Glebe Road, 8th Floor  
Arlington, VA 22201-4714  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100

**INFORMATION DISCLOSURE  
CITATION**

ATTY. DOCKET NO.

2551-149

APPLICANT

BOSMAN et al.

FILING DATE

April 16, 2004

SERIAL NO.

10/825,219

(Use several sheets if necessary)

GROUP

1645

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	2001/0034580	10/2001	Skoluick et al	702/19		
56	5,610,009	03/1997	Watanabe et al			
50	5,514,539	05/1996	Bukh et al			
46	5,919,454	07/1999	Brechot			
43	5,308,750	05/1994	Mehta et al			
44	5,871,962	02/1999	Bukh et al			
45	5,830,691	03/1998	Miyamura et al			
322	6,245,503	06/2001	Maertens et al			
67	6,150,134	11/2000	Maertens et al			

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
		0 947 525 A	10/1999	Europe				
	1	WO 96 04385 A	02/1996	PCT				
		WO 98 37208 A	08/1998	PCT				
	103	PCT/US93/00907	1993	PCT				
	101	PCT/IT92/00081	1992	PCT				
	49	PCT/US92/07189	1992	PCT				
	102	PCT/US91/08272	1991	PCT				
	71	WO 93/18054 A2	09/1993	WIPO				
	111	EP 0569537	06/1998	Europe				
	112	WO 92/13892	08/1992	WIPO				
	73	EP 0388232 A1	09/1990	Europe				
	110	GB 2212511	07/1989	Great Britain				

**OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)**

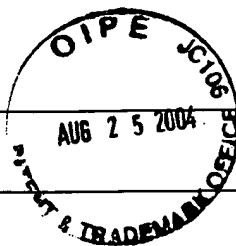
	PINTER, et al., "Localization of the labile disulfide bond between SU and TM of the murine leukemia virus envelope protein complex o a highly conserved CWLC motif in SU that resembles the active site sequence of thio-disulfide exchange enzymes", Journal of Virology, (1997), pages 8073-8077, XP002133536
	BEEKMAN, et al., "Synthetic peptide vaccines: palmitoylation of peptide antigens by a thioester bond increases immunogenicity", Journal of Peptide Research, (1997), pages 357-364, XP000891231
	Blake, "Ethylcarbonyl Protection for Cysteine in the Preparation of Peptide-Conjugate Immunogens", International Journal of Peptide and Protein Research, Vol. 40, No. 1, (1992), pages 62-65, XP000297183
	Aslund, et al., "Bridge over troubled waters: sensing stress by disulfide bond formation", Cell, Vol. 96, (1999), pages 751-753, XP000877490
	Virology, Third Ed., Fields, Eds. Lippincott Williams & Wilkins 1996, p 31
	Randal, J., J. Ntaional Cancer Inst. 91 (11) 906-908 (1999)
51	Choo et al, PNAS (1994) pp 1294-1298
52	Lanford et al, Virology 197, pp 225-235 (1993)
79	Matsuura et al, J. Virol. 66, No, 3, pp 1425-1431 (1992)

\*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

Form PTO-FB-A820 (Also PTO-1449)



**INFORMATION DISCLOSURE  
CITATION**

ATTY. DOCKET NO.

2551-149

APPLICANT

BOSMAN et al.

FILING DATE

April 16, 2004

SERIAL NO.

10/825,219

GROUP

1645

(Use several sheets if necessary)

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

**FOREIGN PATENT DOCUMENTS**

DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO

**OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)**

109	Kaito et al, J. Gene, 1994, Vol. 75, pp 1755-1760
9	Ralston et al, "Characterization of Hepatitis C. Virus....," J. Virol 67:6753-6761 (1993)
76	Nishihara et al, "Secretion and Purification of Hepatitis C....," Gene 129; 207-214 (1993)

\*Examiner \_\_\_\_\_ Date Considered \_\_\_\_\_

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

Form PTO-FB-A820 (Also PTO-1449)